

REMARKS

Claims 1, 2, 21, 22, 42, and 43 have been amended. Claims 48-51 have been added. No new matter has been introduced as a result of these additions. Claims 1-12, 21-32, and 41-51 are currently pending in the application.

A first Amendment After Final Action was filed on October 26, 2000, and the Advisory Action dated November 9, 2000 stated this amendment was not entered. A second Amendment After Final Action was filed on February 27, 2001, and the Advisory Action dated May 1, 2001 stated the Amendment After Final Action would be entered upon the filing of an appeal. The second Amendment After Final Action, however, was filed concurrently with an Appeal Brief. Consequently, Applicant views the claim amendments in the second Amendment After Final Action as not entered. See M.P.E.P. § 714.13. Therefore, the state of the pending claims as of the date of the Notice of Non-Compliance correspond to claims 1-12, 21-32, and 41-43 as originally filed in the application and claims 44-47 added in the Amendment filed on June 12, 2000.

In the Final Office Action dated July 27, 2000, claims 44-47 were rejected under 35 USC § 112, first paragraph, for containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The Examiner further rejected claims 44-47 under 35 USC § 112, first paragraph, for containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains to make and/or use the invention. Claims 1, 3, 4, 21, 23, 24, 44, and 45 were rejected under 35 USC § 102 for being anticipated by McLaughlin (USPN 5,570,108). Claims 2 and 22 were rejected under 35 USC § 103(a) for being unpatentable over McLaughlin in view of Fisher (USPN 5,903,267). Claims 5-10, 12, 25-30, 32, 41-43, and 46-47 were rejected under 35 USC § 103(a) for being unpatentable over McLaughlin in view of Shafer (USPN 5,386,247). Claims 11 and 31 were rejected under 35 USC § 103(a) for

being unpatentable over McLaughlin in view of Shafer and Priem (USPN 4,907,174). Applicant respectfully traverses these rejections for at least the following reasons.

35 USC § 112 Rejection

Claims 44-47 state "the special window information is embedded in the video signal so as to be visually indistinctive to a viewer." Applicant submits this claimed feature is described in the specification and therefore demonstrates the inventors had possession of the claimed invention at the time the application was filed. Furthermore, the description included in the specification describes this feature in such a way as to enable one ordinarily skilled in the art to make and use the invention.

In rejecting claims 44-47 under the sufficient written description requirement, the Examiner stated on page 3 of the Final Office Action:

Specification [sic] does not explicitly describe nor is sufficiently clear for one of ordinary skill in the art to recognize: 1) "visually indistinctive to a viewer" in claims 44-47. The description is not sufficient to understand how an object that is not changed when the object is "visually indistinctive." Claims are unclear that [sic] the one ordinarily skilled in the cannot recognize the encompassed claim limitations.

Applicant respectfully disagrees with the Examiner. The claimed subject matter is described using phrases such as "not visually discernible" (page 5, lines 4-7), "without causing visual distraction" (page 5, lines 12-14), "visually unobtrusive" (page 10, lines 14-18), and "should not distract the user" (page 15, lines 12-15). Furthermore, the specification states "... the information in first key signal 514 and in second key signal 516 should be encoded in a manner that will *not be visually distinctive* to the viewer when both key signals are depicted on display 112" (emphasis added). Applicant respectfully submits the phrase "not ... visually distinctive" gives proper antecedent basis for the claim terminology of "visually indistinctive."

Furthermore, Applicant's specification describes an exemplary technique for embedding special window information in the video signal so as to be visually indistinctive to a viewer. For example, page 5, lines 4-7 states a "color coding scheme enables storage of key signal information in a manner that is easily detectable by the window decoder, yet is not visually discernible, given the limited acuity of the human eye." The color coding scheme utilizes, for example, one color channel as the data signal and another color channel as a complement to produce an achromatic gray color of pixels. A sequence of bits may be encoded in order to produce an "unobtrusive achromatic gray" when displayed on the screen. Figure 6 and its corresponding description disclose an exemplary color coding scheme that produces one or more achromatic gray pixels. For at least this reason, Applicant respectfully submits the specification expressly discloses the claimed subject matter in claims 44-47.

In rejecting claims 44-47 under the enablement requirement, the Examiner stated on page 4 of the Final Office Action:

Undue experimentation and ingenuity would be required beyond one ordinarily skilled in the art to practice: 1) "visually indistinctive to a viewer" in claims 44-47. Undue experimentation would be needed to make an object that is not changed when the object is "visually indistinctive."

Applicant respectfully disagrees with the Examiner. As discussed above, Applicant's specification describes an exemplary technique for embedding special window information in the video signal so as to be visually indistinctive to a viewer. As discussed above, the specification states a "color coding scheme enables storage of key signal information in a manner that is easily detectable by the window decoder, yet is not visually discernible, given the limited acuity of the human eye." Figure 6 and its corresponding description disclose an exemplary color coding scheme that produces one or more achromatic gray pixels. For at least this reason, Applicant

respectfully submits the specification describes the claimed subject matter in claims 44-47 with sufficient detail to avoid any undue experimentation.

102 Rejection

In order for a reference to anticipate an invention, each and every element of the claimed invention must be found in a single reference. "Moreover, it is incumbent upon the examiner to identify wherein each and every facet of the claimed invention is disclosed in the applied reference." *Ex parte Levy*, 17 USPQ2d 1461, 1462 (Bd Pat App & Inter 1990). "The identical invention must be shown in as complete detail as is contained in the ... claim." MPEP § 2131. Applicant respectfully submits McLaughlin does not teach or disclose each and every element in claims 1, 3, 4, 21, 23, 24, 44, and 45.

McLaughlin teaches a display control and calibration system. The control system is disclosed with reference to Figures 2 through 9. The calibration system is disclosed in conjunction with Figures 10 and 11. The description in McLaughlin teaches that a user must drag, activate, select and/or control the various controls in the system before any action is taken by the system. For example, to change the brightness and contrast, the user must first select control 43. In response, the system displays controls 70-79. The user can then control the brightness and/or contrast by selecting desired ones of controls 70-79. See column 8, line 53 to column 9, line 30. Any changes a user makes to the display characteristics apply to the entire display screen and all of the text, windows, pictures, and objects displayed on the screen. McLaughlin does not teach or suggest processing one or more windows within an image displayed on the screen differently from the rest of the image.

Furthermore, McLaughlin does not teach or suggest embedding any information into, or extracting any information from, the video signal, as recited in Applicant's independent claims 1, 21, 42, 43, and 48. Embedding special window information in a video signal causes the video signal to include at least two parts: (1)

the video signal that would exist if the special window information were not embedded therein, and (2) the special window information inserted into the video signal. McLaughlin does not disclose, teach or suggest inserting any additional information into the video signal.

The Examiner argued McLaughlin "teaches a window which can also be interpreted as the presence of a corresponding window manager in a video signal." Applicant notes its window manager does not reside in the video signal, but rather is an operation or device that embeds special window information *into* a video signal.

The Examiner also argued McLaughlin "teaches the use of buttons for activating window driven functions; the use of such buttons translates into a type of window manager for running programs." Applicant respectfully disagrees with this assertion. McLaughlin teaches a control and calibration system for a display. The buttons are manipulated by a user in order to modify the characteristics of a display. For example, a user can control display features such as white point, gamma, brightness/contrast, position/size, color match, degauss, and calibration values of the display. By manipulating one or more buttons, icons, sliders, crosshair tools, and cursors, a user can adjust the various parameters for a display. Any changes a user makes to the display characteristics apply to the entire display screen and all of the text, windows, pictures, and objects displayed on the screen.

Applicant also disagrees with the Examiner's claim that "any type of circuitry which translates input entered into computer readable signals then back to human readable output is considered a window decoder." This statement by the Examiner is not supported by any evidence or documentation. Furthermore, the Examiner is not considering all of the claim language in Applicant's claims. Independent claims 1, 21, and 43 specifically recite the window decoder *extracts* said special window information from said video signal and *responsively generates* a display control signal. Nothing in McLaughlin teaches a window decoder to extract the special

window information from the video signal and then responsively generate a display control signal.

"Claims in dependent form shall be construed to incorporate by reference all the limitations of the claim incorporated by reference into the dependent claim." 37 CFR 1.75. Therefore, claims 3, 4, and 44 include all the limitations of claims 1, while claims 23, 24, and 45 include all of the limitations of claim 21. For the reasons discussed above, McLaughlin does not anticipate independent claims 1 and 21. Consequently, McLaughlin does not anticipate dependent claims 3, 4, 23, 24, 44, and 45 either.

For at least these reasons Applicant respectfully submits McLaughlin does not teach each and every element of the claimed invention in claims 1, 3, 4, 21, 23, 24, 44, and 45.

103(a) Rejections

The Manual of Patent Examining Procedure states the following in Section 2142:

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

Applicant submits that the combination of McLaughlin and Fisher, McLaughlin and Shafer, and McLaughlin, Shafer, and Priem, do not render Applicant's claimed invention obvious, since the combinations of references do not meet any of the three basic criteria listed above. The discussion below, however, will be limited to the third requirement.

McLaughlin and Fisher

The Examiner rejected claims 2 and 22 in view of McLaughlin and Fisher. Applicant respectfully notes that the combination of McLaughlin and Fisher does not render Applicant's claims 2 and 22 obvious.

Claims 2 and 22 depend from independent claims 1 and 21, respectively. Dependent claims refer back to and further limit another claim in the same application. "Claims in dependent form shall be construed to incorporate by reference all the limitations of the claim incorporated by reference into the dependent claim." 37 CFR 1.75. Therefore, claims 2 and 22 include all the limitations of claims 1 and 21, respectively. Applicant's earlier arguments regarding McLaughlin apply to this rejection as well. Nothing in these combined references teaches or suggests a window manager to embed special window information in a video signal. Furthermore, the references do not teach or suggest the window manager be included in an operating system.

The Examiner argued Fisher "teaches the window control programs known as OS/2 and windows which can be interpreted as window managers are also operating systems." The Examiner referenced lines 53-57 in column 3 of Fisher as support for this rejection. Lines 52-58 in column 3 of Fisher state:

Operating system 222 can be any operating system, such as OS/2, Windows, AIX, OS/400, etc, but is preferably an operating system that provides a graphical user interface, and those skilled in the art will appreciate that the spirit and scope of the present invention is not limited to any one operating system. Application program 224 can be any type of application program which provides a view to any type of document.

Applicant submits nothing in these sentences teaches or suggests including a window manager in an operating system. The sentences cited by the Examiner

simply list various types of operating systems that may be utilized in Fisher. The citation also states that any type of application program may be used. The various components used to construct the operating system are not discussed or suggested by these sentences in Fisher.

Therefore, for at least this reason, Applicant respectfully submits the combination of McLaughlin and Fisher does not render Applicant's claims 2 and 22 obvious because the references do not teach or suggest all of the claim limitations.

McLaughlin and Shafer

The Examiner rejected claims 5-10, 12, 25-30, 32, 41-43, and 46-47 in view of McLaughlin and Shafer. Applicant respectfully submits the combination of McLaughlin and Shafer does not render Applicant's claims 5-10, 12, 25-30, 32, 41-43, and 46-47 obvious.

With respect to claim 5, The Examiner argued:

Shafer teaches an RGB matrix which can be interpreted as presence [sic] of pixels in a display. Shafer teaches a graph which can be interpreted as a first color signal serving as a video clock signal for said special display information. Shafer teaches a second color signal including said display information.

The Examiner then cited lines 45-60 in column 1 of Shafer as support for these arguments. Lines 45-60 in column 1 of Shafer state:

One on-screen display used by known sleep timers includes a textual message on the display screen indicating the amount of time (e.g. number of seconds) before the television receiver is going to turn itself off. Other on-screen displays include an iconic symbol, which may include simple animation, for example, a bar graph with a bar that gradually grows in length from one end of the on-screen display toward the other. When the bar reaches the other end of the on-screen display, the time period is over, and the receiver turns itself off. Other on-screen displays produce a black border from one or more edges of the screen. This border gradually increases in width, obscuring more and more of the image. When the border completely covers the screen, the time period is over, and the receiver turns itself off.

Applicant respectfully submits these sentences do not teach or support any of the Examiner's arguments. Nothing in these sentences teaches or suggests pixels in a display, a graph as a first color signal serving as a video clock signal for said special display information, and a second color signal including the special display information. This section of Shafer only discloses different implementations for an on-screen sleep timer. And since the Examiner stated his rationale for rejecting claim 25 is the same as claim 5, Applicant's arguments for claim 5 apply to claim 25 as well.

With respect to claim 6, the Examiner argued:

McLaughlin teaches the use of a special window which can be interpreted as a method for reading key signals including a pattern of bits of said special window (fig 2). McLaughlin teaches the use of a window which can be understood as the presence of a software program for interpreting as information for encoding a target area position (fig. 2). McLaughlin teaches displaying a window on a display device which can be interpreted as corresponding the [sic] target position to a pattern of said pixels depicted on said display device (fig. 2).

The Examiner did not reference anything in Shafer for claim 6. Applicant notes its earlier arguments regarding McLaughlin also apply to this rejection. Claim 6 includes all of the limitations from claim 5 and claim 1. Nothing in McLaughlin and Shafer teaches or suggests a window manager to embed special window

information in a video signal, and a window decoder for extracting the special window information from the video signal. And Figure 2 in McLaughlin illustrates a window having display control and calibration icons in a tool bar located at the bottom of the window. Nothing in Figure 2, and its corresponding description, teaches or suggests key signals including a pattern of bits of the special window information to encode a target area position. And since the Examiner stated his rationale for rejecting claim 26 is the same as claim 6, Applicant's arguments for claim 6 apply to claim 26 as well.

With respect to claim 7, the Examiner stated:

Shafer teaches the use of a pixel pair which uses an RGB matrix in a display system wherein each member pixel pairs being proximately located, said pixel pairs being colored according to said first color signal, said second color signal, and said third color signal in an additively complementary manner to visually approximate a single pixel of a mixed color (fig 4).

Figure 4 in Shafer depicts a block diagram of a circuit. Applicant submits that Figure 4, and its corresponding description, do not teach or suggest pixel pairs, having the pixel pairs be proximately located and colored in an additively complementary manner, and having the pixel pairs approximate a single pixel of a mixed color. Figure 4 is simply a detailed block diagram of a sleep timer circuit. And since the Examiner stated his rationale for rejecting claim 27 is the same as claim 7, Applicant's arguments for claim 7 apply to claim 27 as well.

With respect to claims 8, 9, and 12, the Examiner argued Figure 6 of McLaughlin taught all of the elements in those claims. The Examiner did not reference anything in Shafer for these rejections. Applicant notes its earlier arguments regarding McLaughlin apply to this rejection. Figure 6 in McLaughlin illustrates a window having white point control tools and sliders for adjusting the red, green, and blue levels in a display. Nothing in Figure 6, and its corresponding description, teaches or suggests the elements claimed in claims 8, 9, and 12. And

since the Examiner stated his rational for rejecting claims 28 and 41, 29, and 32, is the same as claims 8, 9, and 12, respectively, Applicant's arguments for claims 8, 9, 12 apply to claims 28, 29, 32, and 41 as well.

With respect to claim 10, the Examiner stated "McLaughlin teaches the use number [sic] sequences associated with various windows indicating a number of special windows (fig. 3-6)." The Examiner did not reference anything in Shafer for this rejection. Applicant notes its earlier arguments regarding McLaughlin apply to this rejection. Figures 3 in McLaughlin is an enlarged view of a portion of the tool bar in Figure 2. Figure 4 illustrates a window having display configuration adjustment controls for the display. Figures 4A and 4B are enlarged view of the "unlock" and "lock" icon (reference no. 36). Figure 5 in McLaughlin depicts a window with brightness and contrast adjustment tools for the display. And finally, Figure 6 illustrates a window having white point control tools and sliders for adjusting the red, green, and blue levels in a display. Nothing in Figures 3 through 6, and their corresponding descriptions, teach or suggest Applicant's claim 10. And since the Examiner stated his rational for rejecting claim 30 is the same as claim 10, Applicant's arguments for claim 10 apply to claim 30 as well.

With respect to claims 42 and 43, the Examiner stated "McLaughlin in view of Shafer teach [sic] the rational" of claims 42 and 43 "in rejected claim 21." However, the Examiner did not reject claim 21 under § 103(a) for being unpatentable over McLaughlin and Shafer. Applicant submits, however, the combination of McLaughlin and Shafer does not teach or suggest embedding special window information in a video signal and extracting special window information from the video signal. These elements are expressly recited in claims 42 and 43.

With respect to claims 46 and 47, the Examiner argued "McLaughlin discloses special window information that is embedded in the video signal so as to be visually indistinctive to a viewer (fig. 2)." The Examiner did not reference anything in Shafer for these rejections. Applicant notes its earlier arguments regarding McLaughlin

apply to these rejections. Figure 2 in McLaughlin illustrates a window having display control and calibration icons in a tool bar located at the bottom of the window. Nothing in Figure 2, and its corresponding description, teaches or suggests embedding special window information in the video signal so as to be visually indistinctive to a viewer.

Furthermore, claims 5-10 and 12 ultimately depend from independent claim 1. Claims 25-30, 32, and 41 ultimately depend from independent claim 21. Claim 46 depends from independent claim 42, and claim 47 depends from independent claim 43. Therefore, these dependent claims include all the limitations of their respective independent claims (and the intervening claims). The combination of McLaughlin and Shafer does not teach or suggest embedding special window information in a video signal and extracting special window information from the video signal. These elements are expressly recited in independent claims 1, 21, 42, and 43.

For at least these reasons, Applicant respectfully submits the combination of McLaughlin and Shafer does not render Applicant's claims 5-10, 12, 25-30, 32, 41-43, and 46-47 obvious because the references do not teach or suggest all of the claim limitations.

McLaughlin, Shafer, and Priem

The Examiner rejected claims 11 and 31 in view of McLaughlin, Shafer, and Priem. Applicant respectfully submits this combination does not render Applicant's claims 11 and 31 obvious.

Priem discloses a method for using a Z-buffer memory having a Z-value for each data point on an object to be displayed. The Z-buffer memory is organized in a manner that identifies the window in which the graphics or text is displayed. The Examiner argued "Priem teaches a method or sequence of instructions which can be interpreted as indicating a shape of said target area when said target area is not

rectangular (fig. 1; col. 3, lines 19-70)." Figure 1 in Priem illustrates a monitor displaying several overlapping windows. One of the windows, window E, is not rectangular in shape. The Examiner stated "it would have been obvious to one with ordinary skill in the art ...to provide a shape sequence indicating a shape of said target area when said target area is not rectangular as taught by Priem...". Applicant submits Figure 1, and its corresponding description, do not disclose how window E achieves its non-rectangular shape. The Examiner is reading the claim language into Priem in order to conclude Priem teaches including or transmitting a shape sequence indicating a shape of a target area when the target area is not rectangular.

Furthermore, claim 11 ultimately depends from independent claim 1, and claim 31 from claim 21. Therefore, these dependent claims include all the limitations of their respective independent claims (and the intervening claims). The combination of McLaughlin, Shafer, and Priem does not teach or suggest embedding special window information in a video signal and extracting special window information from the video signal. These elements are expressly recited in independent claims 1 and 21. Therefore, claims 11 and 31 are not rendered obvious by the combination of McLaughlin, Shafer, and Priem.

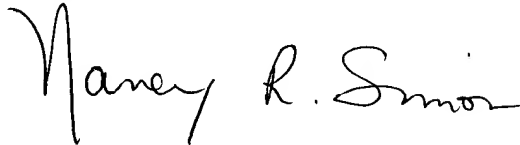
For at least these reasons, Applicant respectfully submits the combination of McLaughlin, Shafer, and Priem does not render Applicant's claims 1 and 31 obvious because the references do not teach or suggest all of the claim limitations.

In light of the amendments and discussion above, Applicant believes that all claims currently remaining in the application are allowable over the prior art, and

respectfully requests allowance of such claims.

Respectfully submitted,

Date: November 1, 2002

A handwritten signature in black ink that reads "Nancy R. Simon". The signature is written in a cursive style with a large, stylized "N" and "S".

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims

Claims 1, 2, 21, 22, 42, and 43 have been rewritten as follows:

1. (Amended Once) 1. An apparatus for [handling] generating an image on a display, wherein said image includes one or more special windows [in a display], comprising:

a window manager to embed special window information in a video signal, wherein said video signal characterizes said image to be generated on said display; and

a window decoder to extract said special window information from said video signal and responsively generate a display control signal, wherein said display control signal enables special processing of portions of said video signal associated with said one or more special windows to produce said one or more special windows on said display.

2. (Amended Once) The apparatus of claim 1, wherein said window manager is included in an operating system [to simplify application software development].

21. (Amended Once) A method for [handling] generating an image on a display, wherein said image includes one or more special windows [in a display], comprising the steps of:

embedding special window information in a video signal, wherein said video signal characterizes said image to be generated on said display;

extracting said special window information from said video signal using a window decoder; and

generating a display control signal in response to said window information to enable different processing of portions of said video signal associated with said one or more special windows to produce said one or more special windows on [in] said display.

22. (Amended Once) The method of claim 21, wherein said step of embedding is performed by a window manager that is included in an operating system [to simplify application software development].

42. (Amended Once) A system for [handling] generating an image on a display, wherein said image includes one or more special windows [in a display], comprising:

means for embedding special window information in a video signal, wherein said video signal characterizes said image to be generated on said display;

means for extracting said special window information from said video signal;
and

means for [responsively] generating a display control signal in response to said window information to enable different processing of portions of said video signal associated with said one or more special windows to produce said one or more special windows on said display.

43. A computer-readable medium comprising program instructions for [handling] generating an image comprised of one or more special windows on a display [special windows in a display] by performing the steps of:

embedding a special window information in a video signal using a window manager, wherein said video signal characterizes said image to be generated on said display;

extracting said special window information from said video signal using a window decoder; and

[responsively] generating a display control signal in response to said window information to enable special processing of portions of said video signal associated with said one or more special windows to produce said one or more special windows on said display.

New Claims 48-51 have been added.